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(71) Applicant: **Veran Medical Technologies, Inc.**
St. Louis, MO 63144 (US)

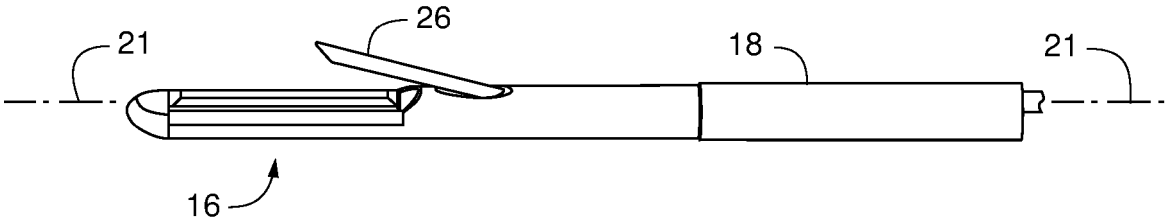
(72) Inventors:
- **HOLSING, Troy**
  Golden, CO 80403 (US)
- **HUNTER, Mark**
  St. Louis, MO 63129 (US)
- **LEE, Christopher**
  St. Louis, MO 63110 (US)

(74) Representative: **Mullholland, Lewis Paul**
WP Thompson
1 Mann Island
Liverpool L3 1BP (GB)

(54) **ENDOBRONCHIAL CATHETER SYSTEM AND METHOD FOR RAPID DIAGNOSIS OF LUNG DISEASE**

(57) A medical device and its method of use includes a catheter, at least two electromagnetic sensing coils located within the distal tip of the catheter, and a multi-element planar ultrasound transducer array located within the distal tip of the catheter and configured to transmit and receive ultrasonic energy. The device also includes an imaging system coupled to the ultrasound transducer and is used for creating an image of tissue in a first target plane that extends orthogonally from the catheter body. The medical device also includes a backscatter evaluation system for use in receiving and evaluating the acoustic spectral characteristics of tissues within a second target area within the first target plane.

FIG. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 24 22 3527

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	25 March 2025	Daoukou, Eleni

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